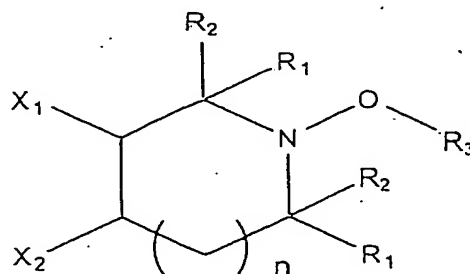


CLAIMS

1. A process for the preparation of block copolymers by means of radicalic polymerization which comprises:

a) polymerizing a vinylaromatic monomer at a temperature

5 higher than or equal to 120°C in the presence of a radicalic initiating system <sup>consisting of</sup> ~~comprising~~ a compound having general formula (I):



wherein R<sub>1</sub> and R<sub>2</sub>, the same or different, represent a methyl or ethyl radical, X<sub>1</sub> represents a hydrogen atom, X<sub>2</sub> represents a hydrogen atom or a hydroxyl or X<sub>1</sub> and X<sub>2</sub>, the same or different, represent a C<sub>1</sub>-C<sub>4</sub> (iso)alkyl radical, or, they jointly form an aromatic ring, n is equal to zero or 1 and R<sub>3</sub> represents a radical selected from one of the following groups:

-C(CH<sub>3</sub>)<sub>2</sub>-CN;

-C(CH<sub>3</sub>)<sub>2</sub>-Ph;

-CHCH<sub>3</sub>Ph;

or R<sub>3</sub> is absent, as in that position there is an uncoupled electron, used in a mixture with <\*>

spect to the total moles of the monomers fed.

~~8. The process according to any of the previous claims, wherein the initiator having general formula (I) is used in~~

~~a mixture with~~ \*  $\left\langle \right.$  radical generator compounds (G) selected

5 from peroxides, peresters, percarbonates, azobisdial-  
kyldinitriles, with molar ratios I/G lower than 4;  $\left. \right\rangle$

~~8.~~ <sup>1</sup> 8. The process according to claim ~~8~~, wherein the initia-  
tor having general formula (I) is used with free radical  
generators (G) selected from dibenzoyl peroxide, dicumyl  
10 peroxide, N,N'-azobis-(diisobutyronitrile) with molar ra-  
tios I/G ranging from 1 to 3.

<sup>9</sup> ~~10.~~ 9. The process according to any of the previous claims,  
wherein the polymerization of both steps (a) and (b) is  
carried out batchwise, in continuous or semi-continuous at  
15 a temperature higher than 120°C and at a pressure which is  
such as to maintain the monomers in liquid phase.

<sup>10</sup> ~~11.~~ 10. The process according to any of the previous claims,  
wherein in the radicalic initiating system having general  
formula (I), X<sub>1</sub> and X<sub>2</sub> jointly form an aromatic ring, and n  
20 is equal to zero.

<sup>11</sup> ~~12.~~ <sup>10</sup> 11. The process according to claim ~~11~~, wherein the initia-  
tor having general formula (I) is selected from:  
1,1,3,3-tetraethyl-2-(2-cyanoprop-2-yl)-2,3-dihydro-1H-  
isoindole;

25 1,1,3,3-tetraethyl-2-(2-phenylprop-2-yl)-2,3-dihydro-1H-

isoindole;

1,1,3,3-tetraethyl-2-(2-phenylethyl)-2,3-dihydro-1H-

isoindole;

1,1,3,3-tetramethyl-2-(2-cyanoprop-2-yl)-2,3-dihydro-1H-

5 isoindole;

1,1,3,3-tetramethyl-2-(2-phenylprop-2-yl)-2,3-dihydro-1H-

isoindole;

1,1,3,3-tetramethyl-2-(2-phenylethyl)-2,3-dihydro-1H-

isoindole.

10 <sup>12</sup>  
~~13~~ Block copolymers based on vinylaromatic monomers and  
monomers deriving from (meth)acrylic acid obtained with the  
process according to any of the previous claims.

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